

Appl. No. 10/612,114
Amdt. Dated Apr. 12, 2004
Reply to Office Action of January 12, 2004

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1 (currently amended): An electrical connector comprising:

a dielectric housing comprising opposite first and second mating sections, the housing defining a plurality of juxtaposed channels in the first and the second mating sections, the channels being arranged along a first direction of the housing; and

a plurality of circuit modules retained in the housing, each circuit module comprising a first circuit board, and a second circuit board, and a plurality of cables electrically connecting to the first circuit board with the second circuit board, the first and the second circuit boards being respectively side by side received in the channels of the first and the second mating sections and extending along a second direction perpendicular to the first direction, the first and the second circuit boards comprising first and second mating edges respectively received in the first and the second mating sections of the housing for mating with complementary components.

Claim 2 (canceled)

Claim 3 (currently amended): The electrical connector as claimed in claim [[2]] 1, wherein each of the first and the second mating sections comprises a plurality of

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protrusions at a top face thereof for ensuring a blind mate with a corresponding complementary component.

Claim 4 (canceled)

Claim 5 (currently amended): The electrical connector as claimed in claim [[4]] 1, wherein the cables comprise exposed conductive cores at opposite ends thereof electrically soldered to the first and the second circuit boards.

Claim 6 (currently amended): The electrical connector as claimed in claim [[4]] 1, wherein each circuit module comprises a pair of grounding plates respectively disposed on the first and the second circuit boards for electromagnetic interference (EMI) protection of the cables.

Claim 7 (original): The electrical connector as claimed in claim 6, wherein each circuit module comprises a cable clamp bonding the cables together.

Claim 8 (original): The electrical connector as claimed in claim 7, further comprising a first fastening element, and wherein each cable clamp defines at least one through hole, and the first fastening element is inserted through the through holes of the cable clamps for locking the circuit modules together.

Claim 9 (currently amended): The electrical connector as claimed in claim [[4]] 1, wherein the dielectric housing comprises front and rear housing portions respectively receiving therein the first and the second mating edges of the first and the second circuit boards.

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Claim 10 (original): The electrical connector as claimed in claim 9, wherein the front and the rear housing portions are identical in structure.

Claim 11 (original): The electrical connector as claimed in claim 9, further comprising a plurality of second fastening elements, and wherein the front and the rear housing portions define a plurality of apertures extending in the first direction, and the first and the second circuit boards define a plurality of through holes aligned with corresponding apertures, the second fastening elements inserting through corresponding apertures of the housing portions and corresponding through holes of the first and the second circuit boards.

Claim 12 (original): The electrical connector as claimed in claim 9, wherein the housing comprises an intermediate housing portion interconnecting the front and the rear housing portions.

Claim 13 (original): The electrical connector as claimed in claim 12, further comprising a third fastening element, and wherein the intermediate housing portion defines a bore extending in the first direction, the second fastening element inserting through the bore.

Claim 14 (original): The electrical connector as claimed in claim 12, wherein the intermediate housing portion comprises first and second halves joined together.

Claim 15 (original): The electrical connector as claimed in claim 14, wherein each of the first and the second halves of the intermediate housing portion

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comprises a plurality of latches, and the front and the rear housing portions define a plurality of recesses fittingly receiving the latches.

Claim 16 (currently amended): An extender for electrically connecting two similar connection devices, comprising:

spaced first and second housing ~~petion~~ portions respectively defining first and second mating sections thereof;

a plurality of juxtaposed first printed circuit boards with thereof front edge regions disposed in the first mating section;

a plurality of juxtaposed second printed circuit boards with thereof front edge regions disposed in the second mating section; and

a plurality of cables mechanically and electrically connected between rear regions of both said first printed circuit boards and said second printed circuit boards, respectively.

Claim 17 (original): The extender as claimed in claim 16, wherein at least one set of cable clamps fasten said cables together.

Claim 18 (original): The extender as claimed in claim 16, further including an intermediate housing portion respectively connected to said first and second housing portions and protectively enclosing said plurality of cables.

Claim 19 (original): The extender as claimed in claim 16, wherein said first housing portion and said second housing portion are arranged opposite to each other.

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Claim 20 (original): The extender as claimed in claim 16, wherein said first housing portion and said second housing portion are similar to each other, and said first printed circuit boards and said second printed circuit boards are similar to each other.

Claim 21 (new): The extender as claimed in claim 16, wherein the cables are soldered with the rear regions of both said first printed circuit boards and said second printed circuit boards, respectively.